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TITLE: Development of Digital Training Tools for the MHS
       Teledermatology Project

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In 1998, the MHS initiated a store and forward Teledermatology program to improve the quality of patient care in locations that lack specialty services and reduce or prevent the need for outsourcing to civilian contract physicians. In April 1999 the Center for Total Access (CTA) implemented a Teledermatology project throughout the Southeast Region incorporating all three services. CTA personnel provided installation and training to key personnel to operate the equipment and to review procedures for teledermatology consults. To resolve issues related to training personnel the Multimedia Department located at the CTA was consulted to assist in the preparation of a training CD-ROM on how to use the teledermatology equipment and the proper procedures for a web based consult. The development of a training tool provides personnel involved in the Teledermatology consultation project with a readily accessible resource. A stand alone digital training package would also allow continuous training in the event of personnel losses that are inevitable in a military environment. A training package would also allow for continuity for all areas participating in the Teledermatology project. By using an interactive training package emphasis could be placed on areas that are critical in the training of personnel.

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Development of Digital Training Tools for the MHS Teledermatology Project

Introduction

The United States Military Healthcare System (MHS) has grown leaner in recent years due to both downsizing and the reduction of revenue. Telemedicine provides the military with a solution that does not reduce the quality of service to the patient while still providing the military healthcare system with a low cost alternative to patient care. Despite the potential benefits of telemedicine programs, obstacles to telemedicine exist. Telemedicine programs require a new approach to business. Technology is often misrepresented and misunderstood therefore causing personnel to resent new technologies resulting in the failure of telemedicine programs. Command support of telemedicine programs is imperative for success.

In order for telemedicine programs to be successful there must first be acceptance of the technology. This acceptance can come through many avenues. Trained personnel who possess a level of comfort and competence provide positive feedback about a given telemedicine program. Health care providers and patients are also reassured about using technology in the health care delivery process when trained competent personnel are available. The education of key personnel in the use of technology is critical in bringing about the acceptance of telemedicine programs.

Body

In 1998, the Military Healthcare System initiated a store and forward Teledermatology program. The objective of this program is to improve the quality of patient care in locations that lack specialty services and prevent the need for outsourcing to civilian contract physicians. In April 1999, the Center for Total Access (CTA) under the direction of COL Alan Mease implemented a Teledermatology project throughout the Southeast Region incorporating all three services. Equipment was allocated to participants in the Teledermatology project, the equipment package consisted of a Monitor, Central Processing Unit with a minimum of 64MB RAM, Windows NT 4.0, a Digital Camera, and a HP Laser Jet Printer. CTA personnel provided installation of the equipment and training to key personnel on how to operate the equipment and to review procedures for Teledermatology consults. Acceptance of technology is imperative for successful integration of telemedicine. Personnel that are properly trained and possess a level of comfort with the technology lead to a more successful implementation of telemedicine.

Training has always been a key factor to successful mission completion in the military. The military has a high degree of turnaround and training is not always accomplished

before the departing personnel are required to leave. The CTA staff serves as an off-site "help desk" in an effort to empower the regional participants to utilize the Teledermatology program effectively. The "help desk" has already produced astounding results. Personnel are more receptive to the technology knowing that assistance is only a phone call away. The combination of off site support and training have made the Southeast Region Teledermatology Project a success.

To resolve issues related to training personnel the Multimedia Department located at the CTA was consulted to assist in the preparation of a training CD-ROM on how to use the Teledermatology equipment and the proper procedures for a web based consult. The development of a training tool provides personnel involved in the Teledermatology consultation project with a readily accessible resource. A stand alone digital training package would also allow continuous training in the event of personnel losses that are inevitable in a military environment. A training package would also allow for continuity for all areas participating in the Teledermatology project. Using an interactive training package, emphasis could be placed on areas that are critical to include the capturing of the patient's history and instruction on how to capture quality images. The digital training package will be made available in a stand-alone format, for low bandwidth environments, but it will also have the potential to be utilized in a web environment for Internet based training in higher bandwidth environments. The training package will be packaged in a graphical user interface for ease of use in remote locations. The training package will also be intuitive so that a wide variety of users with varied computer experience will be able to effectively utilize the material.

The training curriculum will include:

- Proper use of the digital camera
- A demonstration and tutorial of the teledermatolgy consultation process
- A pre-consultation orientation to telemedicine for the patient, including an electronic consent form
- An atlas of common dermatological manifestations with treatment options for the referring physician.

The digital training package will consist of four computer based training modules. Each module will be developed using CBT authoring software with still images and imbedded audio and video files. The CBT modules will be in a format recognizable by Windows 95, 98 and NT operating systems. Each CD-ROM will be distributed with an auto play feature that will automatically launch the software when it is placed in the CD-ROM drive of the users computer system.

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The CD-ROMs are in their final phases. The patient consent CD-ROM is complete but distribution is on hold at the request of TATRC. The content for the three remaining CD-ROMs are in the script approval process. Productivity has been slowed, largely due to the lack of a formalized content/script approval process being developed between CTA and TATRC. Production would be improved and would flow smoother if at the onset of the project both the project leads and the development team had identified a formalized business process for finalizing content.

Reportable Outcomes

Each module will be focus group tested in the Southeast Region prior to full-scale distribution.

Conclusions

None available at this time.

References

None available at this time.